

C. Remarks

The claims are 1-37, with claims 1-4 being independent. Claims 7, 11, 13, 16, 25, 29, 31 and 32 have been amended to eliminate multiple dependencies. No new matter has been added. Entry of this amendment is respectfully requested.

In the Office Action, the Examiner required election of one of the following four groups of claims:

- Group I: Claim 1, drawn to method of manufacturing a diffractive optical element, including a process for forming a resist mask of blazed shape upon a substrate and for etching the substrate by use of the resist mask so that the blazed shape is transferred to the substrate, characterized by a process for forming, before the etching, means effective to prevent a taper shape, to be produced at an edge of the blazed shape of the resist mask, from being transferred to the substrate, classified in class 427, subclass 162;
- Group II: Claim 2, drawn to a method of manufacturing a diffractive optical element, including a process for forming a resist mask of blazed shape upon a substrate and for etching the substrate by use of the resist mask so that the blazed shape is transferred to the substrate, characterized by a process for forming, before the etching, a mask of non-blazed shape at a position corresponding to an edge of the blazed shape of the resist mask, classified in class 427, subclass 162;

- Group III: Claim 3, drawn to a method of manufacturing a diffractive optical element, including a process of forming a resist mask of blazed shape upon a substrate and for etching the substrate by use of the resist mask so that the blazed shape is transferred to the substrate, characterized by a process for forming, before the etching, a protrusion at a position corresponding to an edge of the blazed shape of the resist mask, classified in class 427, subclass 162; and
- Group IV: Claims 4-30, drawn to a method of manufacturing a diffractive optical element by transferring a mask pattern to a workpiece, characterized in that a shape of a vertical portion of the diffractive optical element is defined by use of a first mask and that a shape of a slant portion of the diffractive optical element is defined by a second mask and in a processing region determined by the first mask, classified in class 427, subclass 162.

The Examiner stated that claims 31-37 will be examined upon election of any one of the above groups. However, if Group IV is selected, the Examiner required election of one of the following species:

- Species A: Claims 7-15, drawn to the method of manufacturing an optical element as recited in claim 4, wherein the first and second mask comprise a resist;
- Species B: Claims 17-22, drawn to the method of manufacturing an optical element as recited in claim 4, wherein the shape of

the second mask is defined on the basis of control of exposure amount; and


Species C: Claims 23-30, drawn to the method of manufacturing a diffractive optical element as recited in claim 4, wherein the shape of the vertical portion of the diffractive optical element is defined by use of the first mask having wall-like protrusions formed with a desired period, and wherein the shape of the slant portion of the diffractive optical element is defined by use of the second mask, which comprises a resist pattern of desired shape, being provided between protrusions of the first mask.

Applicants hereby provisionally elect Group IV, Species A, with traverse. At least claims 4-16 and 31-37 read on the elected subject matter.

Applicants submit that the restriction requirement among Groups I-III is improper. The Examiner based the requirement for restriction on the premise that these groups are related as sub-combinations. However, claims 2 and 3 merely disclose species generically recited in claim 1. See M.P.E.P. §§ 806.04(d); 806.05(a). Specifically, claims 2 and 3 disclose some of the means that are effective to prevent a taper shape, which is produced at an edge of the blazed shape of the resist mask, from being transferred to the substrate. Accordingly, the restriction requirement among Groups I-III should be withdrawn, and claims 1-3 should be examined together as one invention.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,


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